



DEPARTMENT OF PLANNING & BUILDING  
BUILDING DIVISION  
276 Fourth Avenue Chula Vista CA 91910  
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## Photovoltaic Pre-Wiring Installation Requirements and Guidelines

### FORM 4621

These requirements are applicable in all new Single Family Dwellings (SFD's) and duplexes. They shall also apply to Multi Family Dwellings (MFD's) where a solar array can feed the "House Meter" that supplies the common areas of the building.

- In SFD's and duplex units up to 2500 sq. ft, **with the electrical service located on the exterior of a garage wall**, a run of one 3/4" Electrical Metallic Tubing conduit (EMT) shall be installed from an accessible location in the attic to an accessible location stubbed out into the garage. Stub out another conduit from the electrical service to a pull / junction box on the inside of the garage.
- If the electrical service **is not located on an exterior garage wall**, another 3/4" conduit shall be run from the electrical service to a junction box on the inside of the garage wall. (Most PV system inverters will work best out of direct sunlight and heat, and may be mounted in the garage on the backside of the electrical service.)
- Houses over 2500sq.ft and MFD's will require 1" EMT conduit.
- Conduit in the attic shall terminate a minimum of 6 inches above the insulation.
- For roofs having less than a 4" in 12" slope that have clay or concrete roof tiles: EMT conduit, shall be stubbed out a minimum of 12" above the roof, capped off and provided with a roof jack for a future Photovoltaic System. (The area of roof penetrated should be at least 300 square feet and not subject to shading by trees, vent pipes or other factors.)
- The location for EMT conduit stubbed up through the roof will be to the largest roof area that is south facing, or secondarily to the largest west facing roof area.
- For roofs having a 4" in 12" slope or greater with any type of roof covering: Provide EMT conduit to an accessible location in the attic a minimum of 6" above the insulation and cap off.
- The conduit shall be properly supported, protected, capped off at both ends, and run to accessible locations at both ends.
- Work shall comply with the Electrical code in effect at the time of installation.
- Any notching and boring of studs or top plates shall be strapped/nail plated to provide protection for the conduit and shall reestablish the structural integrity of the members. (Per chapter 23 of the California Building Code in effect at the time of Plan Check approval.)
- Pre-wire conduit shall be complete for rough frame inspection.
- For questions please call Andrew McGuire @ (619) 691-5272 #3613. Our website, search "Photovoltaic" for more information, resources and our Plan Check Correction List.
- Solar Water Heating Pre-Pipe requirement can be modified or waived when it can be satisfactorily demonstrated to the Building Official that the requirements of this section are impractical due to shading, building orientation, construction constraints or configuration of the parcel.

